

9150-13

7/7/2014

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



Jacob Markiewitz
International Dioxide, Inc.
40 Whitecap Drive
North Kingstown, RI 02852

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

JUL 7 2014

Subject: D-491959
ADOX@1875
EPA Registration No. 9150-13
Application Dated: March 13, 2014
Receipt Dated: March 18, 2014

Dear Mr. Markiewitz:

This acknowledges the receipt of your Amendment application dated March 13, 2014 in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) Section 3(c)(5), as amended.

Submission and Proposed Changes

Label amendment is to add food Processing Facilities and Treating Enhanced Oil and Gas Exploration and Recovery System uses. Additional modification made to harmonize precautionary and hazard statements. Also add NSF White Book logo added.

Findings and Comments:

Based on the submitted materials, the label amendment noted above is **acceptable**. The latest amended label dated June 16, 2014 (pin punch 6/16/14).

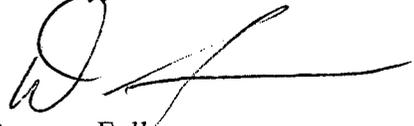
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

This latest amended label and a copy of this letter have been inserted in your file for future reference.

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If you have any questions or comments concerning this letter, please contact David Liem at liem.david@epa.gov or call (703) 305-1284.

Sincerely,



Demson Fuller
Product Manager - Team 32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Encl: Accepted Stamped label

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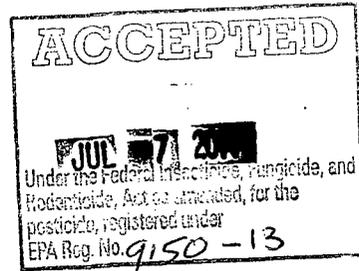
ADOX® 1875 Master Label
NOTE TO REVIEWER – BRACKETS [] INDICATE OPTIONAL TEXT

ADOX® 1875 15% AQUEOUS SODIUM CHLORITE SOLUTION

PRECURSOR FOR CHLORINE DIOXIDE AND ACIDIFIED CHLORITE SOLUTIONS

Active Ingredients

Sodium Chlorite -----	15%
Other Ingredients -----	85%
Total:	100%



KEEP OUT OF REACH OF CHILDREN

DANGER!

See Side Panels for Additional Precautionary Statements

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

For 24 hour emergency information on this product, call Chemtrec at 1-800-424-9300 (US, Canada, Puerto Rico, Virgin Islands) 1-703-527-3887 (All Other Areas). Medical Emergency 1-800-441-3637 (outside U.S. 302-774-1000)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Registration Number 9150-13

EPA Est. No. XXXXXX-YYY-ZZZ

NET CONTENTS _____ GAL.

Manufactured For:
INTERNATIONAL DIOXCIDE, INC., 40 Whitecap Drive, North Kingstown, RI 02852

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ADOX® 1875 Master Label
NOTE TO REVIEWER – BRACKETS [] INDICATE OPTIONAL TEXT

Certified to NSF/ANSI
Max. Use Level 47 mg/L



LISTED (xxxxxxx)

Nonfoods Compounds CATEGORY D2

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ADOX® is a registered trademark of International Dioxide Inc., a DuPont Company.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMAN & DOMESTIC ANIMALS**

DANGER: CORROSIVE: Causes irreversible eye damage and skin burns. Do not get in eyes or clothing. Wear safety glasses or goggles, protective clothing, and rubber gloves when handling this product. Harmful if swallowed. Avoid breathing vapors. Vacate poorly ventilated area as soon as possible. Do not return until strong odors have dissipated. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS
This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

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PHYSICAL AND CHEMICAL HAZARDS

This product becomes a fire or explosive hazard if allowed to dry. Strong oxidizing agent. Mix or dilute into water only. Mixing with acids, or alcohol, or other chemicals may cause evolution of chlorine and chlorine dioxide gas which is toxic and may be explosive. Combustible materials contaminated with ADOX® 1875 may burn rapidly. Keep handling areas and equipment clean and free of oils, greases, combustibles, and dust. Do not contaminate this product with garbage, dirt, organic matter, paint products, solvents, acids, vinegar, beverages, oils, pine oils, dirty rags, or other foreign matter. Do not expose to hot surfaces, sparks or open flame.

NOTICE: Seller expressly warrants that the product conforms to its chemical description. There are no warranties associated with the sale of the product either express or implied including, but not limited to, the warranties of fitness for a particular purpose or use.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

[METHOD OF APPLICATION

ADOX® 1875 is a precursor for the generation of chlorine dioxide. [DO NOT ADD ADOX® 1875 directly to the system being treated.] Chlorine dioxide solutions can be generated from ADOX® 1875 by several common methods including:

1. The chlorine method which utilizes a ADOX® 1875 and chlorine gas, or
2. The hypochlorite method which utilizes ADOX® 1875, a hypochlorite solution and an acid or,
3. The Acid-Chlorite method which utilizes ADOX® 1875 and an acid, or
4. The electrolytic method which utilizes ADOX® 1875, with sodium chloride as needed.

ADOX® 1875 can also be used to form acidified sodium chlorite solutions by mixing the product with Generally Recognized As Safe (GRAS) acids such as citric, phosphoric or acetic acid. Add the generated chlorine dioxide solution to a point in the system which ensures uniform mixing. Your International Dioxide, Inc. representative can guide you in the selection, installation and operation for feed systems. - OPT]

APPLICATIONS

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[POTABLE WATER AND WASTEWATER DISINFECTION: For most municipal and other potable water systems, a chlorine dioxide residual concentration up to 2.0 ppm is sufficient to provide adequate disinfection. Typically, the target residual concentrations range from 0.20 – 0.75 ppm. Monitor the distribution system to ensure that the chlorite concentration does not exceed its maximum contaminant level (MCL) of 1 mg/L and that chlorine dioxide does not exceed its maximum residual disinfection level (MRDL) of 0.8 mg/L. For wastewater and sewage applications, residual chlorine dioxide concentrations up to 5.0 ppm are generally adequate. – OPT]

[POTABLE WATER SYSTEMS: Nitrification: to control the build up of nitrification in the water distribution system. Utilize a chemical metering system to add this product so that the resulting dose of chlorine dioxide or sodium chlorite to control nitrification does not exceed the MRDL of 0.8mg/L for ClO₂, or the MCL of 1.0 mg/L for chlorite ion.

Use of this product in public water systems (drinking water utilities) triggers monitoring and compliance requirements under 40 CFR 141. Among other requirements the user of this product is required to conduct daily monitoring for chlorine dioxide and chlorite at the point of addition and to comply with standards for chlorine dioxide and chlorite. The user of this product is required to contact State or primary drinking water programs to determine specific monitoring, compliance, reporting, and record-keeping requirements in order to avoid adverse human health effects and/or non-compliance with such requirements.” – OPT]

[ONCE-THROUGH COOLING WATER SYSTEMS. Control of mollusks can be effectively accomplished using ADOX® 1875 as directed in commercial and industrial once-through cooling water systems. ADOX® 1875 may be fed on a continuous or slug basis depending on the degree of system fouling. Badly fouled systems must be cleaned before treatment.

SLUG DOSE: Add 42 to 210 lbs of chlorine dioxide per million gallons of water (5 to 25 ppm).

CONTINUOUS DOSE: Add 2 to 16 lbs of chlorine dioxide per million gallons of water (0.25 to 2 ppm). – OPT]

[GENERAL INDUSTRIAL PROCESS WATER TREATMENT (OILFIELD INJECTION WATER, WHITE WATER PAPER MILL SYSTEMS, AND RECIRCULATING COOLING TOWERS): For control of microbial slime, these systems will require a chlorine dioxide residual concentration ranging between 0.25 and 5.0 ppm. Badly fouled systems must be cleaned before treatment. – OPT]

[AQUEOUS DISINFECTIONS SYSTEMS FOR CIP CLEANING: If the concentration of chlorine dioxide generated from ADOX® 1875 exceed 5.0 ppm, a potable water rinse should follow treatment. Care should be taken to ensure the biological and chemical quality of the potable water. – OPT]

[FOOD PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS AND BREWERIES, FOOD PLANTS PROCESS WATER: For microbial control in typical food processing water systems, such as flume transport, chill water systems, hydrocoolers, and other water systems, apply ADOX® 1875 through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 3.0 ppm. – OPT]

[POULTRY PROCESSING CHILLER WATER: Use ADOX® 1875 to generate chlorine dioxide for use as an antimicrobial agent in water used in poultry processing in an amount not to exceed 3 ppm residual chlorine dioxide as determined by an appropriate method. – OPT]

[IRRIGATION AND IRRIGATION WATER SYSTEMS

IRRIGATION: To control bacteria, algae and slime in irrigation piping and emitters for field and greenhouse/hothouse applications treat continuously or with a slug dose.

WATER RESERVOIRS: To control bacteria, algae, slime, and reduce nitrification treat continuously or with a slug dose.

SLUG DOSE: Add 42 to 210 lbs of chlorine dioxide per million gallons of water (5 to 25 ppm)

CONTINUOUS DOSE: Add 2 to 16 lbs of chlorine dioxide per million gallons of water (0.25 to 2 ppm). – OPT]

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[IN FOOD PROCESSING FACILITIES

For use as a terminal food contact surface sanitizing rinse conforming to 40 CFR 180.940 paragraph (b) and (c) not requiring a subsequent potable water rinse. This solution may be used on hard surfaces such as dairy processing equipment, food processing equipment and utensils.

1. All equipment & utensils must be thoroughly cleaned to remove gross food particles and soil by pre-flush or pre-scrape and where necessary a pre-soak treatment. The surfaces or objects must then be cleaned with a detergent or cleaner followed by a potable water rinse before application of the sanitizing solution.

2. To prepare a 200 ppm chlorine dioxide sanitizing use solution add 1 oz. of ADOX® 1875 to 5 gallons of water and then acidify to pH 2.6 with a Generally Recognized As Safe (GRAS) acid such as hydrochloric, citric, phosphoric or acetic acid. Allow to stand for at least 15 minutes before use. Alternatively to minimize worker handling, an automated system can be utilized that will safely react ADOX® 1875 with a GRAS acid and safely dilute the solution to the 200 ppm chlorine dioxide sanitizing use solution.

3. Fill, immerse, circulate, wipe or spray the target surface with the sanitizing solution making sure the surface area is thoroughly wet for at least one minute. Hard to reach in-place equipment, pipes, closed vessels, etc. must be filled with the sanitizing solution to ensure contact of all surfaces. Use suitable breathing apparatus when spraying the solution on external equipment.

4. Allow the sanitizing solution to drain from all treated surfaces and air dry. Do not rinse treated surface.

~~5. The above solution must not be reused for sanitizing, but can be diluted 1:5 with water and used for cleaning of walls, floors and drains of the plant. - OPT]~~

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[DIRECTIONS FOR TREATING ENHANCED OIL & GAS EXPLORATION AND RECOVERY SYSTEMS including primary, secondary or tertiary oil and gas recovery, plus oil sands processing waters.

[NOTE: Addition of chlorine dioxide generated from ADOX® 1875 must be made at the free water knockouts, before or after the injection pumps and injection well headers. For microbial control in oil field water, polymer or micellar floods, water-disposal systems, or other oil field water systems, OXYCHLOR® generator systems are the preferred method of addition.]

[Continuous Feed Method:]

- Treat water [aqueous solutions, suspensions, dispersions, mud, fluids] until a residual of 0.25 to 10.0 ppm chlorine dioxide is achieved.

The required dosage rate, frequency and concentration of chlorine dioxide can vary for each individual user, depending on severity of contamination, temperature and pH. Typical concentrations of chlorine dioxide are between 0.25 and 5.0 ppm above the chemical (chlorine dioxide) demand of the system on a continuous basis, but may require up to 10.0 ppm

The aqueous chlorine dioxide stream from the generator must always be injected or introduced below the surface of the treated water/suspension/fluid/slurry, preferably while flowing or mixing. Allowing the aqueous chlorine dioxide stream to free-fall through air results in a loss of chlorine dioxide gas to the atmosphere. - OPT]

[OPTIONAL MARKETING CLAIMS FOR OIL & GAS PRODUCTION AND EXPLORATION]

[FOR CONTROLLING BACTERIA; INCLUDING SULFATE-REDUCING AND SLIME-FORMING BACTERIA, IN OIL & GAS PRODUCTION SYSTEMS.]

[FOR USE IN TREATING WATER FOR HYDRAULIC FRACTURING]

[OIL FIELD WATER TREATMENT OF FRACTURING, PRODUCED, DISPOSAL, OUTFALL, INJECTED, DOWN-HOLE, AND CO-MINGLED WATERS]

[ENHANCED OIL RECOVERY SYSTEMS INCLUDING; PRIMARY, SECONDARY OR TERTIARY OIL AND GAS RECOVERY]

[OIL SANDS PROCESSING WATERS]

[SHALE OIL & GAS PROCESSING WATERS]

[ENHANCED OIL RECOVERY SYSTEMS & OIL-FIELD INJECTION WATERS]

[OIL-FIELD WATER SYSTEMS]

[OIL AND GAS PRODUCTION & TRANSMISSION PIPELINES AND SYSTEMS]

ADOX® 1875 Master Label

NOTE TO REVIEWER – BRACKETS [] INDICATE OPTIONAL TEXT

[AS STORAGE FIELDS AND EQUIPMENT, SUCH AS STEAM-INJECTION WATER HOLDING TANKS]

[FLOOD WATER OR INJECTION WATER]

[PRODUCED WATER]

[FRACTURING FLUIDS]

[HOLDING POND WATER AND HOLDING TANK WATER]

[DISPOSAL-WELL WATER]

[HOLDING TANKS]

[DRILLING FLUIDS AND DRILLING MUDS]

[COMPLETION FLUIDS AND COMPLETION MUDS]

[WORKOVER FLUIDS AND WORKOVER MUDS]

[PACKER FLUIDS AND PACKER MUDS]

[DISPOSAL WATER]

[REMOVING, CONTROLLING OR PREVENTING BIOFILM IN OIL & GAS APPLICATIONS]

[REMOVING, CONTROLLING OR PREVENTING BIOFOULING IN OIL & GAS APPLICATIONS]

[*Pseudomonas aeruginosa* ATCC 15442]

[*Staphylococcus aureus* (STAPH) ATCC 6538]

[*Salmonella enterica* (SALMONELLA) ATCC.10708]

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STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL

PESTICIDE STORAGE: Store upright in cool, dry and well-ventilated place. Avoid excessive heat or freezing. Protect from contact with other chemicals; avoid storage with organic chemicals, acids, reducers and combustible material. Keep container tightly closed when not in use. In case of spills, flush and drain promptly to sewer with large quantities of water. Do not allow liquid to dry out because this could present a fire hazard. If fire occurs, extinguish with large volume of water. Avoid exposure to high temperatures during storage. Store remote from other chemicals and combustible materials. Do not skid or slide drums.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: [note to reviewer: one of the four statements below will appear on label]

[Metal containers equal to or less than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by the state and local authorities. –OPT]

[Metal containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. –OPT]

[Plastic containers equal to or less than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. –OPT]

[Plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. –OPT]

EMERGENCY HANDLING: In case of contamination or decomposition, do not reseal container. Isolate in an open, well-ventilated area. Flood with large volumes of water. Cool unopened drums in vicinity by water spray.